

After the final reading has been taken, an opportunity arose to explore the unsaturated effect in qualitative terms. The contractor working on the site agreed to flood the soil behind the east wall with several thousand gallons of water. .

- **November 1, 2005** ~ All instrumentation removed and walls decommissioned
- **November 5, 2005** ~ Burns and Sons remove sheet piles and transports them to Statesville Maintenance Facility.

Figure 5.10 shows highlights of the excavation.

5.4.4 Challenges and Lessons Learned During the Statesville Test

Being this was the first wall installation of a proposed three to four walls, there were several observations made that would be carried forward to future load tests. First, a better effort could be made to ensure the sheet piles are driven to proper depth, especially the instrumented sheets. Only one strain gage and one inclinometer sheet were driven to full depth. One inclinometer sheet pile was driven nine feet short of the required depth. Second, the test wall sheets should be disconnected from those protecting the access ramp. Next, the research team and NCDOT should have better control of the location of the test walls on the site. It was unfortunate that even though it was confirmed with the grading contractor that the area between the west wall and the property line would not be used for hauling, and any existing haul road would be abandoned when testing started, the haul road continued to be used throughout the test. It is difficult to say if the haul road had any impact on the tests. However, data collection and site access were far more challenging.

In terms of instrumentation, there should be more strain gages on the measuring piles. Near the depth where soil makes contact with the wall, there should be sufficient